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A Preliminary List of the Arachnidae of Indiana, with Keys to Families and Genera of Spiders

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By NATHAN BANKS.

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INDIANA

A PRELIMINARY LIST OF THE ARACHNIDA OF INDIANA, WITH KEYS TO FAMILIES AND GENERA OF SPIDERS.

By Nathan Banks.

The material for this paper was largely gathered by W. S. Blatchley and assistants. Several years ago quite a number of specimens were sent me by Dr. Mel. T. Cook, from Greencastle, Putnam County. Later Prof. W. J. Moenkhaus sent me some spiders from Huntingburg, Dubois County; and Mr. A. M. Banta has sent me several small collections from Indiana caves. To these gentlemen should be credited all material from the localities mentioned; but all other locality records are from the collections sent in by Mr. Blatchley.

In these collections I have found 148 species of spiders and 27 other Arachnida. Two of the spiders are new, and are described in this paper. The fauna as a whole is very similar to that of other parts of the northeastern United States; there are, however, minor differences. Some species very common, as *Phidippus multicolor*, are very rare in the eastern states. Phalangida also appear to be more common than in the East. Such common eastern spiders as *Misumena vatia* and *Oxyopes salticus*, appear to be absent, while *Cyclosa caudata* appears from only one locality in two specimens. Where there are peculiar forms, they are of southern origin; that is, species which have spread up the Mississippi Valley.

Under each species I have given a reference to a description, not always, however, the original description. I have also prepared a synoptic table of the families and genera of Indiana spiders, and to make it understandable I have given a brief account of the structure of a spider. Spiders, like many other animals, can only be easily identified in the mature state; therefore one should not attempt to use the tables except on forms showing an exposed vulva in the female, or a developed palpus in the male. Spiders should be collected and preserved in small vials of about 80 per cent. alcohol.

The space between the front or lower eye-row and the front margin of the cephalothorax is called the clypeus. Attached just below the clypeus are the mandibles or falces. Each is of two parts, a large basal joint, and a smaller hook-like part, the fang. The mouth parts seen from below are a median piece, the lip or labium, and a piece each side, the maxillae. Each maxilla bears a jointed appendage, the palpus. In the female the palpus is always

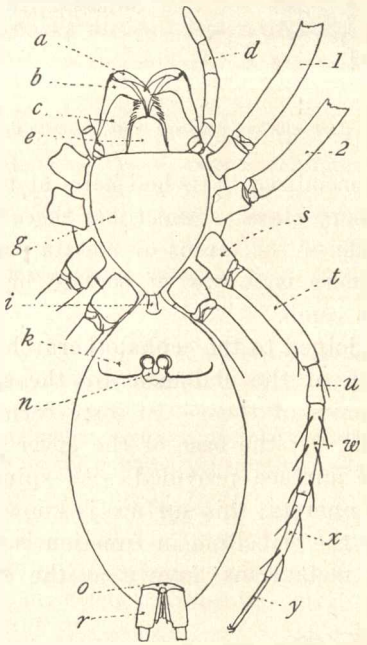

FIG. 2.—*a*, fang; *b*, mandible; *c*, maxilla; *d*, palpus; *e*, lip; *g*, sternum; *i*, pedicel; *k*, epigastric plate; *n*, epigynum; *o*, rima ventralis; *r*, spinnerets; *s*, coxa; *t*, femur; *u*, patella; *w*, tibia; *x*, metatarsus; *y*, tarsus; 1, leg I; 2, leg II.

simple, but in the male, when fully mature, the last joint is enlarged, concave within, and furnished with a number of more or less corneus and curved pieces, which serve as accessory sexual organs. The shape of these male palpi is of great use in the identification of species.

The sternum is the ventral plate of the cephalothorax; it is surrounded by eight legs. The legs are numbered from before backward as follows: I, II, III, IV. Each leg consists of seven parts or joints; each joint from the basal outward is known as follows: coxa, trochanter, femur, patella, tibia, metatarsus, tarsus. At the

TABLE FOR FAMILIES OF INDIANA SPIDERS.

1. Two pairs of lung-slits on venter of abdomen; fangs of mandibles moving vertically, parallel to each other.....*Theraphosidæ*
   But one pair of lung-slits on venter of abdomen; fangs of madibles moving more horizontally toward each other.....2
2. With but six eyes; third pair of legs directed forward.....*Dysderidae*
   With eight eyes; third pair of legs directed outward or backward....3
3. Eyes always in three transverse rows; eyes of second row extremely small, and middle eyes of first row very much larger than other eyes; clypeus always vertical; legs rather short; jumping spiders ..... *Attidae*
   Eyes in two or three transverse rows; when in three rows, then middle eyes of first row are not greatly larger than other eyes, and those of second row not greatly smaller than other eyes.....4
4. Each tarsus with three claws; legs never laterigrade; spiders making webs 8
   Each tarsus with but two claws, never spinning webs; S. E. rarely contiguous 5
5. P. M. E. large, closer to the small A. S. E. than the latter are to the A. M. E., which are also small; cephalothorax not flattened. *Ctenidae*
   P. M. E. not as close to A. S. E. as latter are to A. M. E., or if so, then eyes of nearly equal size.....6
6. P. M. E. black; legs I and II laterigrade, that is, articulated so that the anterior surface is directed upward; second pair of legs nearly always as long as the fourth; cephalothorax broad, and rather flattened .....*Thomisidae*
   P. M. E. pale, only A. M. E. dark colored; legs I and II not laterigrade; leg II often shorter than IV.....7
7. Lower spinnerets distinctly separated, rather long and prominent; maxillae with an obliquely transvere furrow or groove; abdomen often depressed .....*Drassidae*

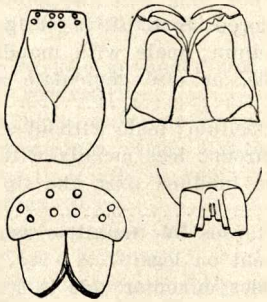

FIG. 5.—Drassidæ; face, cephalothorax, mouthparts, and spinnerets.

Lower spinnerets contiguous; maxillae usually without the furrow, its outer side convex; abdomen more often cylindrical....*Clubionidae*

14. Mandibles large, strongly divergent; abdomen and legs more or less elongate ..... *Tetragnathidae*
Mandibles smaller, not strongly divergent..... *Epeiridae*
15. Eyes in three rows, those of anterior row very much smaller than the others; clypeus nearly vertical; no spur at tip of tibia of male palpus ..... *Lycosidae*
Eyes in two curved rows; those of anterior row not so much smaller than the others; clypeus sloping; a spur at tip of tibia of male palpus ..... *Pisauridae*

KEY TO GENERA OF ABOVE FAMILIES OF SPIDERS.*

Family THERAPHOSIDAE.

Sub-family.

1. Palpus arising from the outer basal side of the maxillae..... *Atypinae*
2. Palpus arising from near or at tip of maxillae..... Theraphosinae

Sub-family ATYPINAE.

We have but one genus, *Atypus*, which is rare in the eastern states, with apparently two species. They live in silken tubes which extend some distance above the ground.

Family DYSDERIDAE.

Genera.

1. Leg III directed backward; spines on sides of tibiae IV; tarsi scarcely one-fourth the length of metatarsi; no spines under metatarsi I..... Dysdera
Leg III directed forward; no spines on sides of tibiae IV; tarsi fully one-third the length of metatarsi; spines under metatarsi I.....2
2. The M. E. rather closer to A. S. E. than to P. S. E.....Segestria
The M. E. closer to P. S. E. than to A. S. E..... *Ariadne*

Family DRASSIDAE.

1. Mandibles with a plate or lobe on under side behind the fang; posterior eye-row plainly recurved 2
Mandibles without such plate, only one or two teeth; posterior eye-row often procurved or straight, rarely a little recurved.....3
2. Posterior eye-row broader than anterior row; P. S. E. not much larger than P. M. E.; head broad.....Gnaphosa
Posterior eye-row not broader than anterior row; P. S. E. plainly larger than P. M. E.; head narrow.....Callilepis
3. No dorsal groove; posterior eye-row slightly recurved; cephalothorax reddish yellow ..... *Sergiolus*
Dorsal groove present; posterior eye-row rarely recurved.....4

*Those genera whose names are printed in italics are represented in the list of spiders taken in Indiana, or are doubtless represented in the State but have not as yet been taken.

5. No spines on legs, or only a few under tibia I.....6
Spines fairly numerous on legs.....7
6. Posterior eye-row strongly recurved.....*Trachelas*
Posterior eye-row straight .....*Meriola*
7. A. M. E. several times their diameter from clypeal margin; often a horny spot near base of abdomen; legs usually partly dark *Castaniera*
A. M. E. scarcely diameter from clypeal margin; no horny spot on abdomen, legs never dark.....8
8. Lip longer than wide; mandibles long; cephalothorax not mottled. *Clubiona*
Lip broader than long; cephalothorax mottled with brown.....9
9. Anterior eye-row procurved.....*Agroeca*
Anterior eye-row recurved .....Hilke
10. The furrow at or before middle of venter; A. M. E. equal to A. S. E. *Anyphaena*
The furrow behind the middle of venter; A. M. E. smaller than A. S. E.....*Gavenna*
11. Sternum broad, prolonged between hind coxæ; posterior eye-row not recurved, tibia I with five or six pairs of spines below..*Phrurolithus*
Sternum not prolonged between hind coxæ which are nearly contiguous 12
12. Posterior eye-row slightly procurved; five pairs of spines under tibia I Chemmis
Posterior eye-row recurved 13
13. But 3-3 spines under tibia I; two spines above on tibiæ III and IV Syspira
At least 5-5 spines under tibia I.....14
14. Eyes subequal in size; anterior eye-row recurved.....Liocranoides
Eyes unequal in size; anterior eye-row not recurved.....15
15. A. M. E. smaller than A. S. E.; posterior row weakly recurved Apostenus
A. M. E. larger than A. S. E.; posterior eye-row strongly recurved Zora

Family AGALENIDAE.

1. Spinnerets arranged in one nearly straight transverse row....*Hahnia*

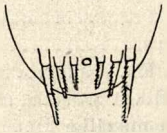

FIG. 9.—Spinnerets of Hahnia.

Spinnerets close together, in two rows.....2
2. But six eyes, the A. M. E. lacking.....Chorizomma
With eight eyes 3
3. Both eye-rows very strongly procurved, so much so that the A. M. E. form a nearly straight line with the P. S. E.; cephalothorax narrow in front.....*Agalena*
Both eye-rows not so strongly procurved.....4

Family THERIDIIDAE.

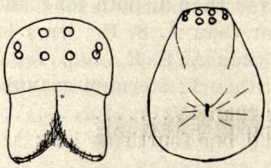

FIG. 11.—Theridiidæ; face and cephalothorax.

1. Abdomen with hard skin and furnished with several humps; small species; sternum truncate behind.....*Ulesanis*
   Abdomen without humps and skin soft.....2
2. S. E. widely separate; posterior eye-row recurved.....3
   S. E. contiguous or nearly so.....4
3. Leg IV as long as I; abdomen rather flat, and broad behind..Epesinus
   Leg I longer than IV; abdomen globose.....*Lathrodectus*
4. P. M. E. fully four times their diameter apart; abdomen prolonged behind; leg IV about as long as I.....*Spintharus*
   P. M. E. rarely over twice diameter apart.....5
5. A. M. E. larger than P. M. E. and much wider apart; clypeus rather high and concave; legs short, IV often as long as I; palpi thick in female 6
   A. M. E. rarely larger than P. M. E., if so then not wider apart.....7
6. Abdomen pointed behind and somewhat flat.....*Euryopis*
   Abdomen more globose, broadly rounded behind.....*Dipoena*
7. Cephalothorax with a transverse furrow in the middle; abdomen usually produced above behind, no chitinous pieces at base; leg I longer than IV.....8
   Cephalothorax with only the ordinary dorsal groove or impression; abdomen not prolonged behind.....9
8. Abdomen very long and slender, vermiform.....Ariamnes
   Abdomen much shorter.....*Argyrodes*
9. On that part of the abdomen that overhangs the cephalothorax there is a chitinous curved piece each side, in the female not prominent, in the male much more so (they form a stridulating organ); colulus present. Leg I usually but little longer than IV; femur I rarely more than one and one-fourth length of cephalothorax; leg IV usually longer than II.....10
   No such pieces on base of abdomen, colulus absent; leg I much longer than IV, which is often shorter than II; femur I usually one and one half to twice the length of cephalothorax.....17
10. Sternum broadly truncate between coxæ IV; small species..*Crustulina*
    Sternum pointed behind; coxæ IV closer together.....11
11. S. E. slightly, but distinctly separate, lower eye-row nearly straight; P. M. E. not large, and rather widely separate.....*Lithyphantes*
    S. E. contiguous 12
12. P. M. E. plainly larger than A. M. E.; abdomen not black, with two yellow spots 13
    P. M. E. not larger than A. M. E.....14

5. Legs without spines; mandibles long, and their lower anterior border provided with several long, slender teeth; A. M. E. larger than P. M. E. ..... Tapinopa
Legs with at least a few spines, or not agreeing with above 6
6. Mandibles long, slender, divergent, in front with 3 pairs of long spines, abdomen depressed and rather broad; P. M. E. less than diameter apart ..... Drapetisca
Mandibles without the 3 pairs of spines in front 7
7. Tibiæ without lateral spines; metatarsus I not longer than tibia I; usually small spiders 8
Tibiæ with lateral spines; metatarsus I usually as long as, often longer than, tibia I; larger spiders 9
8. Posterior eyes closer together; S. E. on slight tubercles; legs long and very slender ..... *Microneta*
Posterior eyes farther apart; S. E. not on tubercles; legs less slender ..... *Tmeticus*
9. P. M. E. plainly closer to P. S. E. than to each other, and larger than S. E.; femora with few if any spines ..... *Neriene*
P. M. E. not closer to P. S. E. than to each other 10
10. No spines on metatarsi; P. M. E. rather close together .. *Bathyphantes*
Spines on metatarsi, at least one 11
11. P. M. E. very much larger than S. E., two or three times larger, about one diameter apart, and as far from very small S. E., which are no larger than A. M. E.; abdomen slender ..... *Linyphiella*
P. M. E. not much larger than other eyes 12
12. P. M. E. at least two diameters apart, or else plainly farther from S. E. than from each other; quadrangle of M. E. plainly wider above than below ..... *Linyphia*
P. M. E. scarcely more than diameter apart, and about as close to P. S. E. 13
13. All femora with some distinct spines 14
All femora not with distinct spines 15
14. Tarsus I two-thirds of metatarsus I; quadrangle of M. E. rather narrower below ..... *Bolyphantes*
Tarsus I only one-half of metatarsus I; quadrangle of M. E. as wide below as above ..... Labulla
15. Abdomen high and broad at base, tapering to a point behind ..... *Lepthyphantes*
Abdomen elliptical or even broader beyond middle, not tapering behind ..... *Frontinella*
16. Tarsus I only about one-half as long as metatarsus I, male with lobate head ..... *Hypselistes*
Tarsus I two-thirds or more of length of the metatarsus I 17
17.* Dorsum of male abdomen with a corneous shield; often present also in female 18
Dorsum of abdomen in both sexes without shield 20
18. Sternum broadly truncate and slightly concave behind between hind coxæ; usually some corneous pieces on venter; tarsi I but little shorter than metatarsi I ..... *Ceratinella*

*Beyond this the table is based on males, although females will frequently run to proper place.

33. P. M. E. closer to each other than to P. S. E.; a hump behind eye-region in male ..... *Grammonota*
Eyes of posterior row about equidistant; no hump behind eye-region...34
34. Distance between eyes of posterior row not much greater than diameter of an eye 35
Distance between eyes of posterior row more than two diameters of an eye ..... Acartauchenius
35. Head of male elevated..... Tiso
Head of male not elevated..... *Gonglydium*

Family TETRAGNATHIDAE.

1. Abdomen with a transverse ventral furrow near middle; abdomen not twice as long as broad..... Glenognatha
Abdomen without such furrow..... 2
2. Abdomen not twice (or barely) as long as broad, not much longer than cephalothorax ..... *Pachygnatha*
Abdomen three or four times as long as broad..... 3
3. S. E. as close or closer than M. E..... *Tetragnatha*

FIG. 12.—Cephalothorax of Tetragnatha.

S. E. farther apart than M. E..... 4
4. Abdomen projecting beyond spinnerets in a tail..... *Eucta*
Abdomen not projecting beyond spinnerets in a distinct tail.. *Eugnatha*

Family EPEIRIDAE.

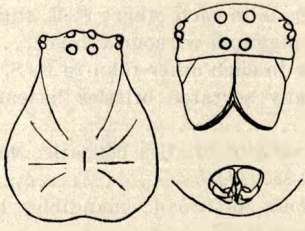

FIG. 13—Epeiridæ; cephalothorax, face and spinnerets.

1. Abdomen with a horny shield, or at least with sigillæ; leg IV longer than I..... 2
Abdomen without shield or sigillæ; leg IV shorter than I..... 4
2. Spinnerets enclosed at base by a horny ring; abdomen with spines... 3
Spinnerets not enclosed by horny ring; abdomen without spines Cercidia
3. Cephalothorax as broad as long; abdomen broader than long Gasteracantha
Cephalothorax and abdomen longer than broad..... *Acrosoma*

20. Legs very slender, especially leg I, almost destitute of spines; cephalothorax very slender; posterior eye-row strongly recurved....*Acacesia*
Legs less slender and with a number of distinct spines, or else the posterior eye-row not strongly recurved.....21
21. Abdomen pointed at base, elongate, sternum one and one half longer than broad; P. M. E. scarcely diameter apart.....*Larinia*
Abdomen not pointed in middle at base.....22
22. Abdomen as high behind middle as at base, and elliptical in outline or broader behind middle; P. M. E. about diameter apart; epigynum without finger; small species, with short legs.....*Singa*
Abdomen highest toward base, and usually broadest near base.....23
23. Cephalothorax with a broad transverse furrow (at least in female); abdomen usually prolonged above behind; A. S. E. never twice as far from A. M. E. as latter from each other; quadrangle of M. E. plainly wider below than above; legs more hairy.....*Cyclosa*
Cephalothorax without such furrow; abdomen rarely prolonged above behind; legs more spiny.....*Epeira*

Family THOMISIDÆ.

1. Legs III and IV not or scarcely shorter than legs I and II; tarsi I and II scopulate (at least in females); hairs of body usually branched, prone not erect.....(Philodrominæ) 2
Legs III and IV much smaller than I and II; tarsi I and II not scopulate; hairs of body, simple, scattered, and erect..(Misumeninæ) 7
2. Leg II very much longer than I; posterior eye-row almost straight; cephalothorax broad .....*Ebo*

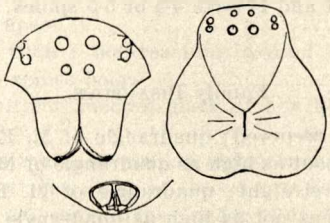

FIG. 14.—Thomisidæ; face, cephalothorax and spinnerets.

Leg II but little longer than I; posterior eye-row very plainly recurved 3
3. Five pairs of spines under tibiæ I and II; P. M. E. nearer to P. S. E. than to each other.....Philodromoides
Less than 5-5 spines under tibiæ I and II.....4
4. P. M. E. farther apart than from P. S. E.; abdomen not very slender; leg IV shorter than leg I.....*Philodromus*
P. M. E. not nearer P. S. E. than to each other, or if barely so then leg IV is longer than I.....5

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Family Lycosidæ.

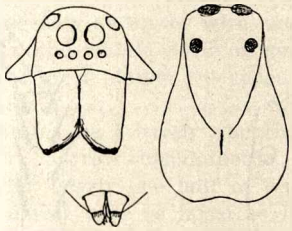

Fig. 16.—Lycosidæ; face, cephalothorax and spinnerets.

1. Tibiæ III and IV with a stout spine at base above.....4
   Tibiæ III and IV without spine at base above, although there may be one near middle above.....2
2. No spines above on tibiæ III and IV; long hair above on these joints, head large and high.....*Geolycosa*
   A spine near middle above on tibiæ III and IV.....3
3. Upper spinnerets not longer than lower; anterior eye-row not wider than the second.....*Trochosa*
   Upper spinnerets longer than lower; anterior eye-row wider than second row; tarsi heavily scopulate.....Sosippus
4. Cephalic region with a wedge-shaped mark, containing a central stripe; posterior spinnerets longer than others; eyes of second row scarcely their diameter apart, small species.....*Pirata*
   No such mark on cephalic region; spinnerets subequal in length.....5
5. Tibia I with 4-4 imbricated spines, the basal ones reaching beyond base of second ones beyond; very small species; eyes of second row not their diameter apart.....*Trabea*
   Basal spines on tibia I not reaching beyond base of the third pair, usually but 3-3 spines below.....6
6. Cephalothorax without median mark of any kind; spines under tibia I very short, 3-3.....*Allocosa*
   Cephalothorax with a paler median stripe or mark.....7
7. Head with sloping sides; eyes of second row usually scarcely diameter apart; usually 3-3 short spines under tibia I, the basal pair rarely reaching next pair; lip longer than broad; larger spiders....*Lycosa*
   Head with more vertical sides; eyes of second row more than diameter apart; 3-3 long spines under tibia I, the basal pair usually reaching next pair; lip not longer than broad; smaller spiders.....*Pardosa*

Family Ctenidæ.

A. S. E. nearer to A. M. E. than to either P. S. E. or P. M. E...Titiotus
A. S. E. nearer to P. M. E. or to P. S. E. than to A. M. E.....*Ctenus*

12. Metatarsus IV heavily spined near base and middle, both below and on sides; cephalothorax never very low, nor very broad; usually spines on patellæ III and IV.....17
Metatarsus IV spined only at tip, or with one or two weak spines on sides; never a basal and middle circle of spines.....13
13. Coxæ I approximate; leg I plainly thickened; sternum usually long; usually large species.....15
Coxæ I widely separate; leg I barely thickened; sternum short; very small species, with a narrow cephalothorax.....14
14. Ocular area occupying nearly one half of cephalothorax; as wide in front as behind, dorsal eyes as large as laterals of first row; no spines below on tarsus IV.....*Neon*
Ocular area less than one half of cephalothorax, rather wider behind; dorsal eyes smaller than laterals of first row; spines below on tarsus IV .....Attidops
15. Abdomen about four times as long as broad; tibia I with 4-4 spines below .....Hyctia
Abdomen much shorter.....16
16. Eye-region occupying two-fifths of cephalothorax; the sternum nearly as broad as long, smaller species.....*Fuentes*
Eye-region occupies about one-third of cephalothorax; the sternum much longer than broad; larger species.....*Marpissa*
17. Tibia I with 4-4 spines below.....18
Tibia I with less than 4-4 spines below.....19
18. Ocular area slightly narrower behind than in front; leg IV plainly longer than I.....*Mævia*
Ocular area barely narrower behind; leg I as long as IV....*Pleæippus*
19. Cephalothorax rather long; eye-area occupying scarcely one-third of length; tibia I with 3-3 spines.....20
Cephalothorax shorter; eye-area occupying fully two-fifths of length; coxæ I widely separate.....21
20. Basal spine of femora III and IV about one-half as long as the joint; abdomen vittate .....*Phlegra*
Basal spine of femora III and IV much shorter; abdomen not vittate .....Sidusa
21. Patella III as long as IV, no patellar spines.....Euophrys
Patella III shorter than IV, patellar spine present.....*Attus*
22. Cephalic part about two-thirds of cephalothorax, reaching almost to abdomen; legs short, leg I thickened; hind metatarsi spined only at tip .....*Homalattus*
Cephalic part far shorter.....23
23. Cephalothorax high, and rather broad; quadrangle of eyes wider behind than in front; large species, rarely under 7 mm.; leg I heavy and very hairy, often with fringes of hair, mandibles often iridescent; often a group of stout bristles near lateral eyes.....*Phidippus*
Cephalothorax not as high and heavy, leg I not so hairy; smaller species, rarely over 6 mm.....24
24. A spine above before middle on tibia III and IV, and above on base of metatarsus IV; leg I not thickened; small species.....Attinella
No spines above on tibia III and IV, nor on base of metatarsus IV..25

Family CLUBIONIDÆ.

6. *Agrocca pratensis* Emer., Trans. Conn. Acad., VIII, 190, 1890.
One from Arlington, Marshall County.
7. *Anyphaena gracilis* Htz., Spid. U. S., 86, 1875.
From Hammond, June 16; Veedersburg, May 12 (young).
8. *Chiracanthium inclusum* Htz., Spid. U. S., 85, 1875.
From Vincennes, August 23.
9. *Clubiona abbotii* Koch, Die Arachn. fam. Drassiden, 303, 1867.
One from Arlington, Marshall County, June 16.
10. *Clubiona triloba* n. sp.
Pale yellowish, slightly infuscated with brown on the head, mandibles red-brown. Eye region broad, nearly as broad as in *C. tibialis*, P. M. E. more than two diameters apart and a trifle closer to the equal

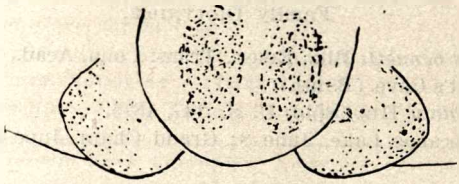

FIG. 19.—Clubiona triloba, vulva.

P. S. E.; A. M. E. less than their diameter apart, and a little farther from the nearly equal A. S. E. Legs long and slender, metatarsi I and II scopulate to near base, tibia I and II with 2-2 spines below, tibiæ III and IV with 1-1 spines below, a patch of dense brown hair at tips of metatarsi III and IV below. Abdomen rather slender, pointed at tip; vulva is not as broad as in *C. tibialis*, and shows three lobes behind, the lateral projecting more behind than the medium one. Length, 9 mm.
One female from Wyandotte, Indiana; also a female from near Charleston, West Virginia.
11. *Castaneira descripta* Hentz., Spid. U. S., 92, 1875.
From Greencastle.
12. *Castaneira longipalpis* Hentz., Spid., U. S., 93, 1875.
From Tippecanoe Lake, August 17; Knox County, July 2.
13. *Trachelas tranquilla* Htz., Spid. U. S., 89, 1875.
From Tippecanoe Lake, June 8; Greencastle; Huntingburgh.
14. *Phrurolithus alarius* Hitz., Spid. U. S., 98, 1875.
From Grand Chain, Posey County, May 12.

Family AGALENIDÆ.

15. *Agalena naevia* Htz., Spid. U. S., 102, 1875.
From Tippecanoe Lake, August 17; Vincennes, August 31; North Vernon, September 14; New Albany September 11; Clear Lake, August 13; Marion County, May 30 (young); Greencastle; Huntingburgh
16. *Tegenaria cavicola* Banks, Rept. Ind. State Geol. 1896, 202.
From Salt Petre Cave, Crawford County.

34. *Steatoda borealis* Htz., Spid. U. S., 145, 1875.
From Greencastle.

34a. *Eurypis funebris* Htz., Spid. U. S., ———, 1875.
New Harmony, June 4.

35. *Pedanostethus riparius* Keys. Die Spinn. Amer., II (2), 126, 1886.
From Knox County, May 26.

36. *Asagena americana* Emer., Trans. Conn. Acad., VI, 23 1882.
From Wyandotte, April 17.

37. *Argyrodes trigonum* Htz., Spid. U. S., 152, 1875.
From Twin Cave, April (Banta).

Family LINYPHIIDÆ.

38. *Gonglydium tridentatus* Emer., Trans. Conn. Acad., VI, 53, 1882.
From Porter Cave, Owen County.

39. *Erigone infernalis* Keys, Die Spinn. Amer., II (2), 180, 1886.
From Twin Cave, November 9 (Banta).

40. *Erigone longipalpus* Emer., Trans. Conn. Acad., VI, 59, 1882.
From Arlington, June 10.

41. *Bolyphantes lineata* Keys, Die Spinn. Amer., II (2), 64, 1886.
From Greencastle.

42. *Linyphia phrygiana* Koch, Die Arachin., III, 83, 1836.
From Culver, June 29.

43. *Linyphia marginata* Koch, Emer., Trans. Conn. Acad., VI, 61, 1882.
From Arlington, June 10; Wyandotte, April 17; Greencastle.

44. *Willibaldia carernicola* Keys, Die Spinn. Amer., II (2), 123, 1886.
From Donnelson's Cave, November 9 (Banta).

45. *Phanetta subterranea* Emer., Amer. Nat., IX, 279, 1875.
Described from Wyandotte Cave; from Truitt's Cave, April 1 (Banta).

46. *Nesticus carteri* Emer., Amer. Nat., IX, 279, 1875.
From Bradford Cave (Emerton); Marengo Cave (Banta); Porter, Coon and Marengo caves (Blatchley).

Family TETRAGNATHIDÆ.

46a. *Pachygnatha tristriata* Koch.
New Harmony, June 4.

47. *Tetragnatha extensa* Linn., Emer., Trans. Conn. Acad., VI, 333, 1884.
From Tippecanoe Lake, June 6, 8; Vincennes, July 10; Grand Chain, July 8; Culver, June 29; Knox County, July 2.

48. *Tetragnatha grallator* Htz., Spid. U. S., 131, 1875.
From Tippecanoe Lake, June 6, 8; Arlington, June 10; Kosciusko County; Huntingburgh.

49. *Tetragnatha laboriosa* Htz., Spid. U. S., 131, 1875.
From Tippecanoe Lake, June 6; Hammond, June 16; May 29; July 30; Arlington, June 10; Wyandotte, June 25; Mitchell, April 2 (young); Grand Chain, June 3; Attica, June 20; Vawter Park, June 1; Pine, Lake County, May 25; Wilders, July 25; Greencastle.

50. *Eugnatha straminea* Emer., Trans. Conn. Acad., VI, 335, 1884.
From Tippecanoe Lake, June 6.

60. *Singa nigripes* Keys. Verh. zool. bot. Ges. Wien, 1883, 655.
From Grand Chain, May 12.

61. *Singa variabilis* Emer., Trans. Conn. Acad., VI, 322, 1884.
From Tippecanoe Lake.

62. *Epeira angulata* Clerck., Emer., Trans. Conn. Acad., VI, 299, 1884.
From Greencastle.

63. *Epeira displicata* Htz., Spid. U. S., 117, 1875.
From Tippecanoe Lake, June 6; Grand Chain, June 3; Attica, June 20; Shoals, May 16; Vawter Park, June 1.

64. *Epeira domiciliorum* Htz., Spid. U. S., 108, 1875.
From Grand Chain, July 8; Greencastle; Huntingburgh.

65. *Epeira globosa* Keys. Verh. zool.-bot. Ges. Wien, 1865, 820.
From Greencastle.

66. *Epeira infumata* Htz., Spid. U. S., 122, 1875.
From Grand Chain, June 3 (young).

67. *Epeira insularis* Htz., Spid. U. S., 109, 1875.
From Vincennes, August 23; Mitchell, July 13; Montezuma, August 12; Marion County, May 30; Greencastle.

68. *Epeira labyrinthea* Htz., Spid. U. S., 111, 1875.
From Greencastle.

69. *Epeira prompta* Htz., Spid. U. S., 115, 1875.
From Tippecanoe Lake, June 6; Hammond, June 16; Vincennes, July 10, August 23; Arlington, June 10; Wyandotte, June 25; Bass Lake, June 22, 20; Grand Chain, July 8, June 3 (young); Attica, June 20; Vawter Park, June 1; Pine, June 29; Culver, June 29; Knox County, July 2.

70. *Epeira sclopetaria* Clerck., Emer., Trans. Conn. Acad., VI, 303, 1884.
From Greencastle.

71. *Epeira strix* Htz., Spid. U. S., 112, 1875.
From Tippecanoe Lake, August 17; Vincennes, November 26; Arlington, June 10; Grand Chain, July 8; Vawter Park, June 1; Culver, June 29; Knox County, July 2; Jeffersonville, June 23; Greencastle.

72. *Epeira thaddeus* Htz., Spid. U. S., 113, 1875.
From Greencastle.

73. *Epeira trifolium* Htz., Spid. U. S., 110, 1875.
From Culver, August 22; Greencastle.

74. *Epeira trivittata* Keys. Sitz. Ibis, Dresden, 1864, 95.
From Tippecanoe Lake, June 6, 8; Hammond, July 30, May 29; Vincennes August 23; Arlington, June 10; Wyandotte, June 26; Bass Lake, June 17, 22, 20; Culver, June 29, August 22; Wilders, July 25; Greencastle.

75. *Epeira verrucosa* Htz., Spid. U. S., 121, 1875.
From Vincennes, July 10; Wyandotte, September 9; Montezuma, August 12; Knox County, July 2 (young); Greencastle.

76. *Plectana stellata* Htz., Spid. U. S., 125, 1875.
From Vincennes, July 10; Bass Lake, June 20; Grand Chain, July 8; North Vernon, September 14; Greencastle.

77. *Ordgarius cornigerus* Htz., Spid. U. S., 123, 1875.
From Greencastle.

78. *Acrosoma rugosa* Htz., Spid. U. S., 124, 1875.
From Wyandotte, September 9; Greencastle.

96. *Xysticus transversus* Bks., Proc. Acad. Nat. Sci. Phil., 1892, 54.
From New Harmony, February 23 (not quite adult).

97. *Xysticus stomachosus* Keys., Die Spinn. Amer., I, 28, 1880.
From Vincennes, August 23; Arlington, June 10 (young); Wyandotte, July 25 (young); Bass Lake, June 22 (young); Culver, June 29; Greencastle.

98. *Xysticus gulosus* Keys., Die Spinn. Amer., I, 43, 1880.
From Wilders, July 25; Greencastle.

99. *Xysticus nervosus* Banks, Proc. Acad. Sci. Phil., 1892, 55.
From Tippecanoe Lake, June 6; Culver, June 29; Greencastle.

100. *Xysticus quadrilineatus* Keys., Die Spinn. Amer., I, 42, 1880.
From Kosciusko County.

Family Pisauridæ.

101. *Pisaurina undata* Htz., Spid. U. S., 42, 1875.
From Arlington, June 10; Bass Lake, June 20; Shoals, July 13 (young); Culver, June 29; Greencastle; Huntingburgh.

102. *Pisaurina subinflata* Htz., Spid. U. S., 161, 1875.
From New Harmony, September 3; North Vernon, April 14 (young).

103. *Dolomedes urinator* Htz., Spid. U. S., 40, 1875.
From Mitchell, April 2 (young); Donelson's Cave.

104. *Dolomedes tenebrosus* Htz., Spid. U. S., 38, 1875.
From Wyandotte, July 25 (young); Bass Lake, October 10 (half grown), April 9; Mitchell, July 15; Medora, September 24; Cypress Swamp, September 25 (young); Knox County, May 26 (young); Lake Maxinkuckee, August 7 (young); Gibson County, September 1; Wilders, July 25; Greencastle.

105. *Dolomedes sexpunctatus* Htz., Spid. U. S., 41, 1875.
From Tippecanoe Lake, June 6; Greencastle.

Family Lycosidæ.

106. *Lycosa avara* Keys., Verh. zool.-bot. Ges. Wien, 1876, 661.
From North Vernon, May 7.

107. *Lycosa carolinensis* Walck., Emer. Trans. Conn. Acad., VI, 486, 1885.
From Wyandotte, July 25; North Vernon, September 14; Laporte County, August 26.

108. *Lycosa erratica* Htz., Spid. U. S., 29, 1875.
From Hammond, May 7 (young).

109. *Lycosa fatifera* Htz., Spid. U. S., 26, 1875.
From Wyandotte, September 8, May 27 (with cocoon); Bass Lake, October 10; New Harmony, September 3; Culver, August 22; Marion County, May 30.

110. *Lycosa frondicola* Emer., Trans. Conn. Acad., VI, 484, 1885.
From Mitchell, August 28; North Vernon, April 14 (young); New Albany, May 4; Huntingburgh.

111. *Lycosa gracilis* Banks, Proc. Acad. Nat. Sci. Phil., 1892, 70.
From Wyandotte, April 17.

From Arlington, June 10; Bass Lake, June 22; New Harmony, May 6; September 2; Grand Chain, May 12, June 3; Attica, June 20; North Vernon, May 7; Culver, June 29; Greencastle; Huntingburgh.

129. *Phidippus rufus* Htz., Spid. U. S., 60, 1875.
From Vincennes, July 10; Wyandotte, September 9; Bass Lake, June 17; Grand Chain, July 8; Wilders, July 25; Huntingburgh.

130. *Phidippus insignitarius* Koch., Die. Arachn., XIII, 150, 1846.
From Hammond, June 16; Arlington, June 10.

131. *Philaeus rimator* Peck, Att. N. Amer., 32, 1888.
From Greencastle.

132. *Dendryphantes rarus* Htz., Spid. U. S., 62, 1875.
From Greencastle.

133. *Dendryphantes militaris* Htz., Spid. U. S., 62, 1875.
From Wyandotte, June 25; Mitchell, July 15.

134. *Dendryphantes octarius* Htz., Spid. U. S., 70, 1875.
From Hammond, June 16, May 29, July 30; Arlington, June 10; Wyandotte, June 25, 26; Bass Lake, June 22; Grand Chain, May 12, June 3; Attica, June 20; Shoals, May 16; Veedersburg, May 12; Vawter Park, June 1; Pine, June 29; New Albany; Culver, June 29.

135. *Phiegra leopardus* Htz., Spid. U. S., 63, 1875.
From New Harmony, September 3.

136. *Habrocestum pulex* Htz., Spid. U. S., 65, 1875.
From Wyandotte, September 8.

137. *Thiodina retarius* Htz., Spid. U. S., 161, 1875.
From Wyandotte, June 25, July 25; Grand Chain, June 3; New Albany; Huntingburgh.

138. *Mavia vittata* Htz., Spid. U. S., 64, 1875.
From Arlington, June 10; New Albany.

139. *Marpissa undata* De Geer, Peck, Att. N. Am., 80, 1888.
From Greencastle; Huntingburgh.

140. *Wala mitrata* Htz., Spid. U. S., 68, 1875.
From Arlington, June 10; Grand Chain, July 8, May 12, June 3; Shoals, May 16; Veedersburg, May 12; Vawter Park, June 1; Shoals, July 13.

141. *Wala palmarum* Htz., Spid. U. S., 71, 1875.
From Hammond, June 16, May 29, July 30; Arlington, June 10; Pine, May 25.

142. *Tutelina elegans* Htz., Spid. U. S., 56, 1875.
From Hammond, May 29; Arlington, June 10; Bass Lake, June 22; Shoals, May 16; Culver, June 29; Knox County, July 2.

143. *Zygoballus bettini* Peck, Att. N. Amer., 89, 1888.
From Knox County, July 2.

144. *Homalattus cyaneus* Htz., Spid. U. S. 69, 1875.
From Hammond, June 16.

145. *Synemosyna formica* Htz., Spid. U. S., 73, 1875.
From Arlington, June 10; Culver, June 29.